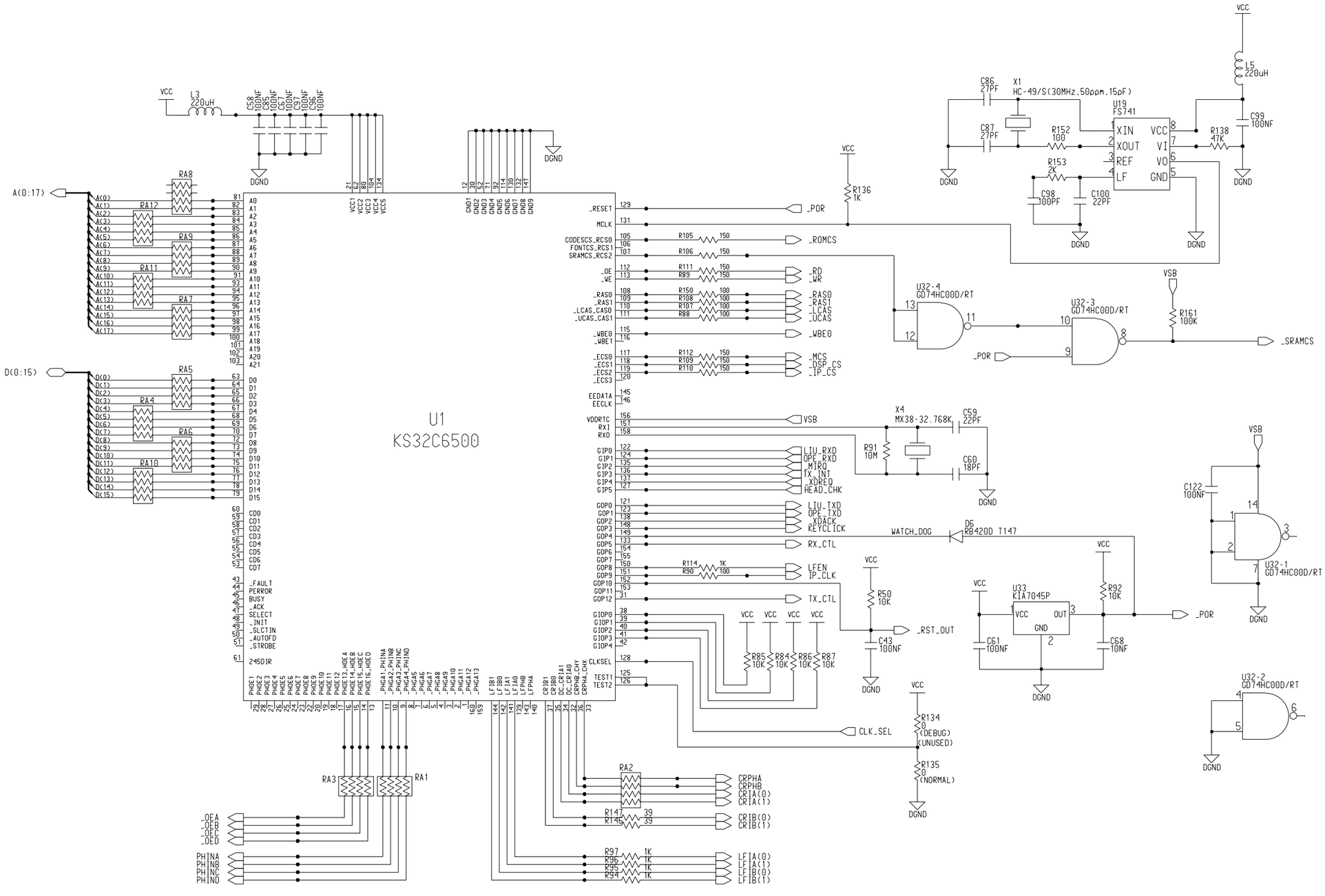
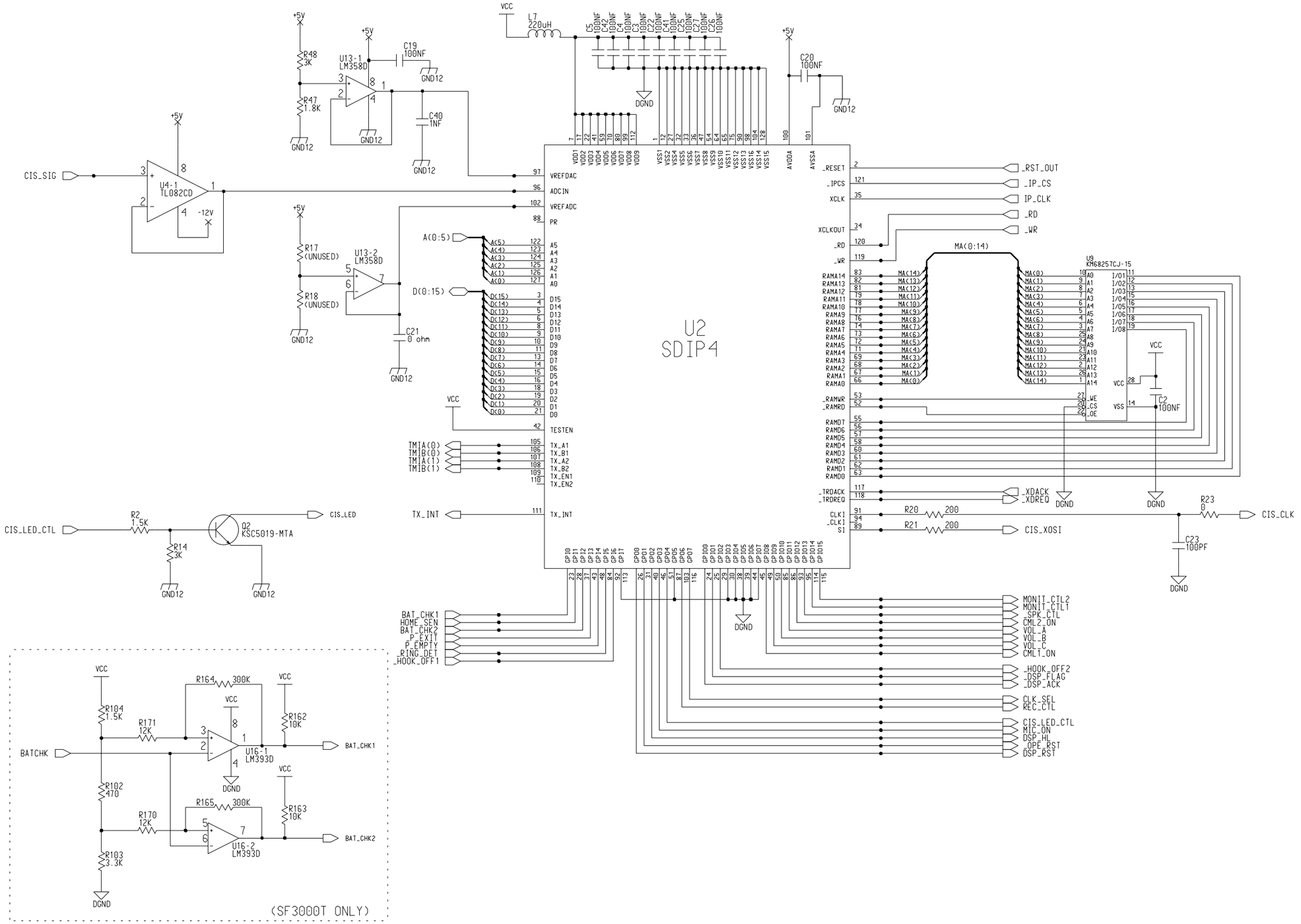
12. Schematic Diagrams

12-1. Main Circuit Diagram

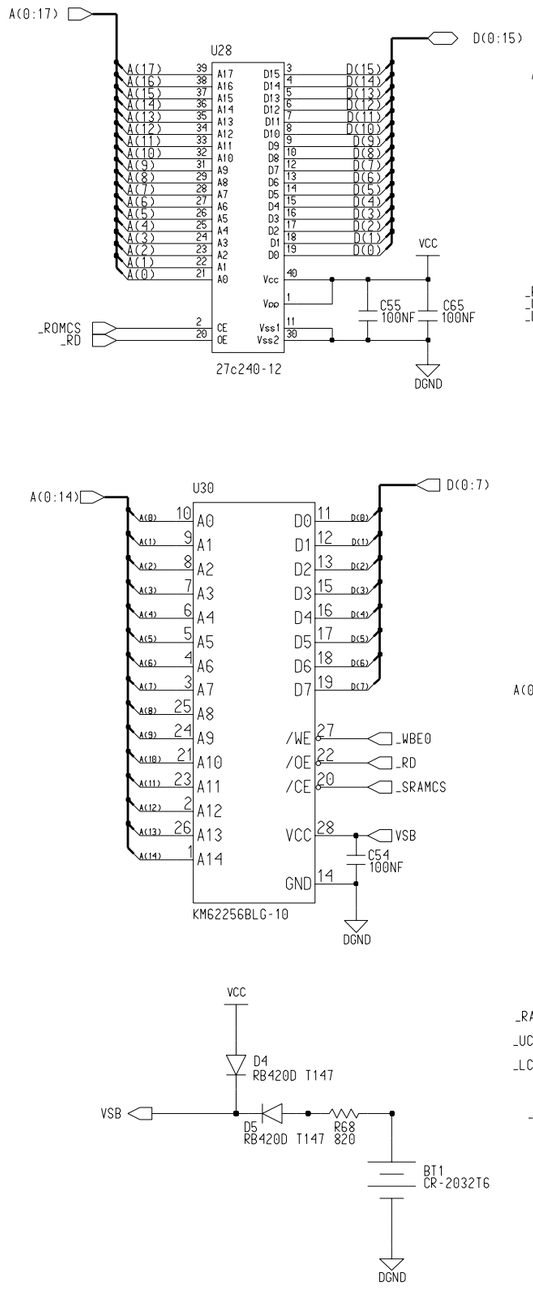
CPU

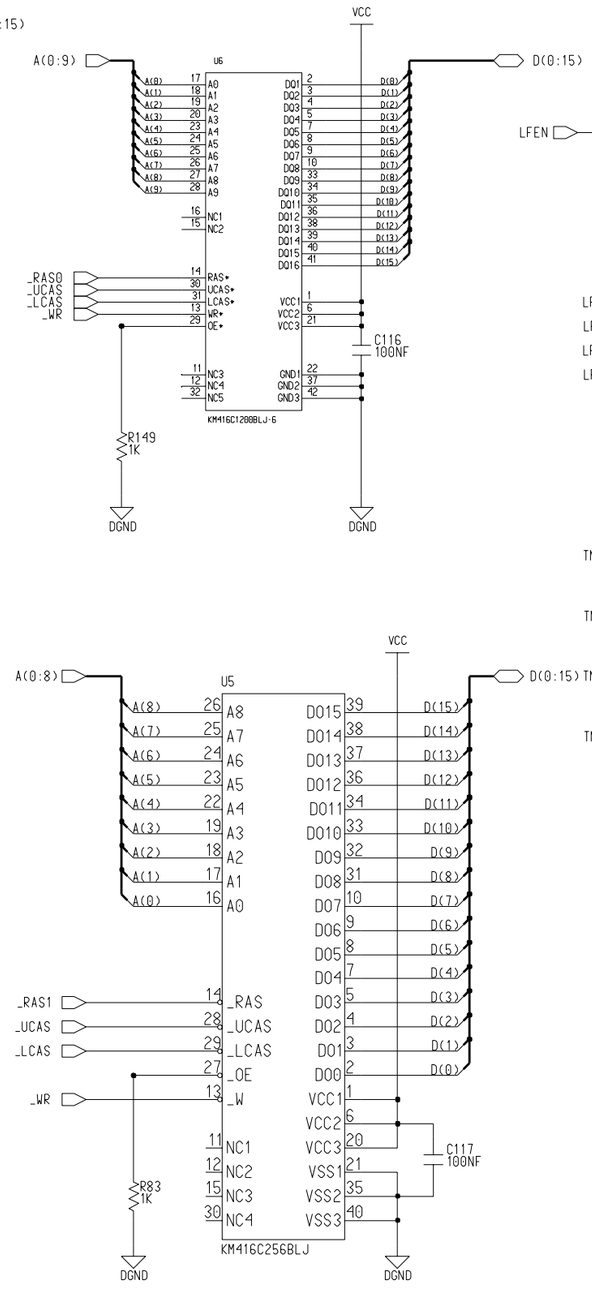


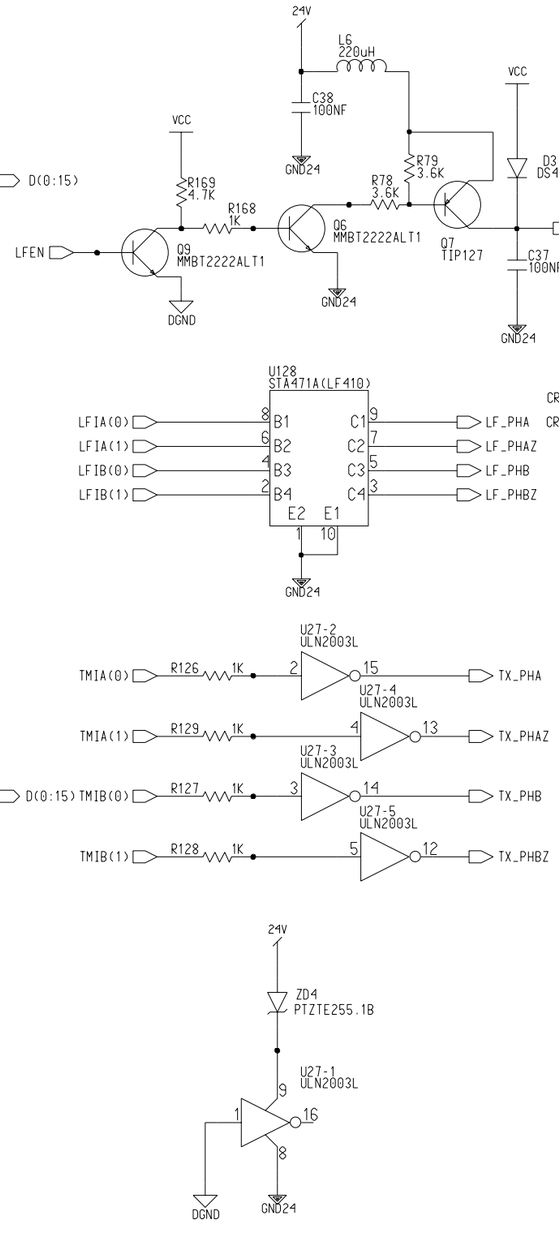
SCAN, I/O

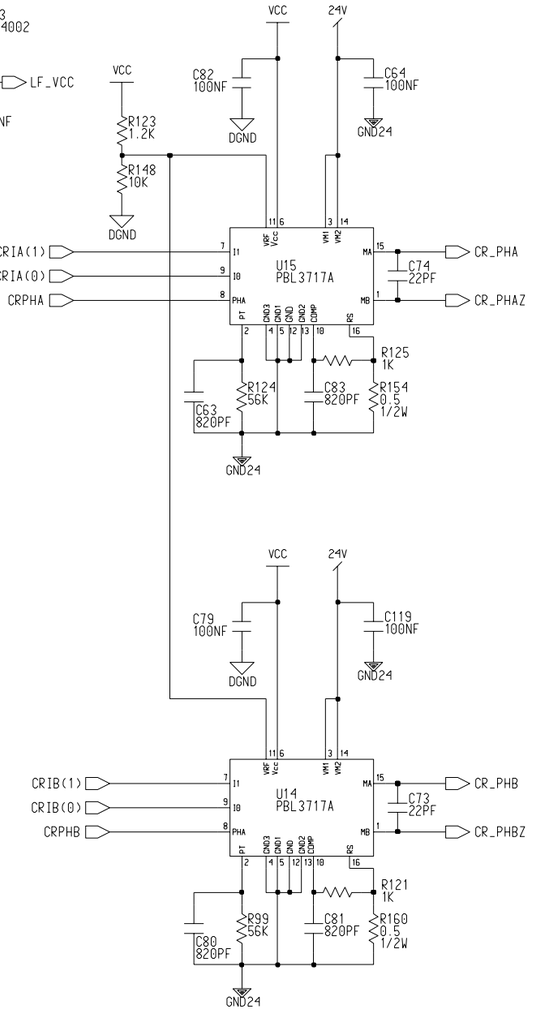

U2
SDIP4
U4-1
TL082CD
U13-1
LM358D
U13-2
LM358D
U16-1
LM393D
U16-2
LM393D
U9
KM68257CJ-15
Q2
KSC5019-MTA
CIS_SIG
CIS_LED_CTL
CIS_LED
BATCHK
BAT_CHK1
BAT_CHK2
TX_INT
VCC
DGND
GND12
-12V
+5V
L7
220uH
C5 100NF
C42 100NF
C4 100NF
C3 100NF
C22 100NF
C41 100NF
C25 100NF
C27 100NF
C26 100NF
C19 100NF
C20 100NF
C40 1NF
C21 0 ohm
C2 100NF
C23 100PF
R48 3K
R47 1.8K
R17 (UNUSED)
R18 (UNUSED)
R2 1.5K
R14 3K
R104 1.5K
R171 12K
R164 300K
R162 10K
R102 470
R170 12K
R165 300K
R163 10K
R103 3.3K
R20 200
R21 200
R23 0
A(0:5)
D(0:15)
MA(0:14)
TMIA(0)
TMIB(0)
TMIA(1)
TMIB(1)
VREFDAC
ADCIN
VREFADC
PR
TESTEN
TX_A1
TX_B1
TX_A2
TX_B2
TX_EN1
TX_EN2
TX_INT
_RESET
_IPCS
XCLK
XCLKOUT
_RD
_WR
_RAMWR
_RAMRD
_TRDACK
_TRDREQ
CLK1
_CLK1
S1
_RST_OUT
_IP_CS
IP_CLK
_RD
_WR
_XDACK
_XDREQ
CIS_XOSI
CIS_CLK
BAT_CHK1
HOME_SEN
BAT_CHK2
P_EXIT
P_EMPTY
RING_DET
HOOK_OFF1
MONIT_CTL2
MONIT_CTLT
SPK_CTL
CML2_ON
VOL_A
VOL_B
VOL_C
CML1_ON
HOOK_OFF2
DSP_FLAG
DSP_ACK
CLK_SEL
REC_CTL
CIS_LED_CTL
MIC_ON
DSP_HL
OPE_RST
DSP_RST
(SF3000T ONLY)

Memory, Motor

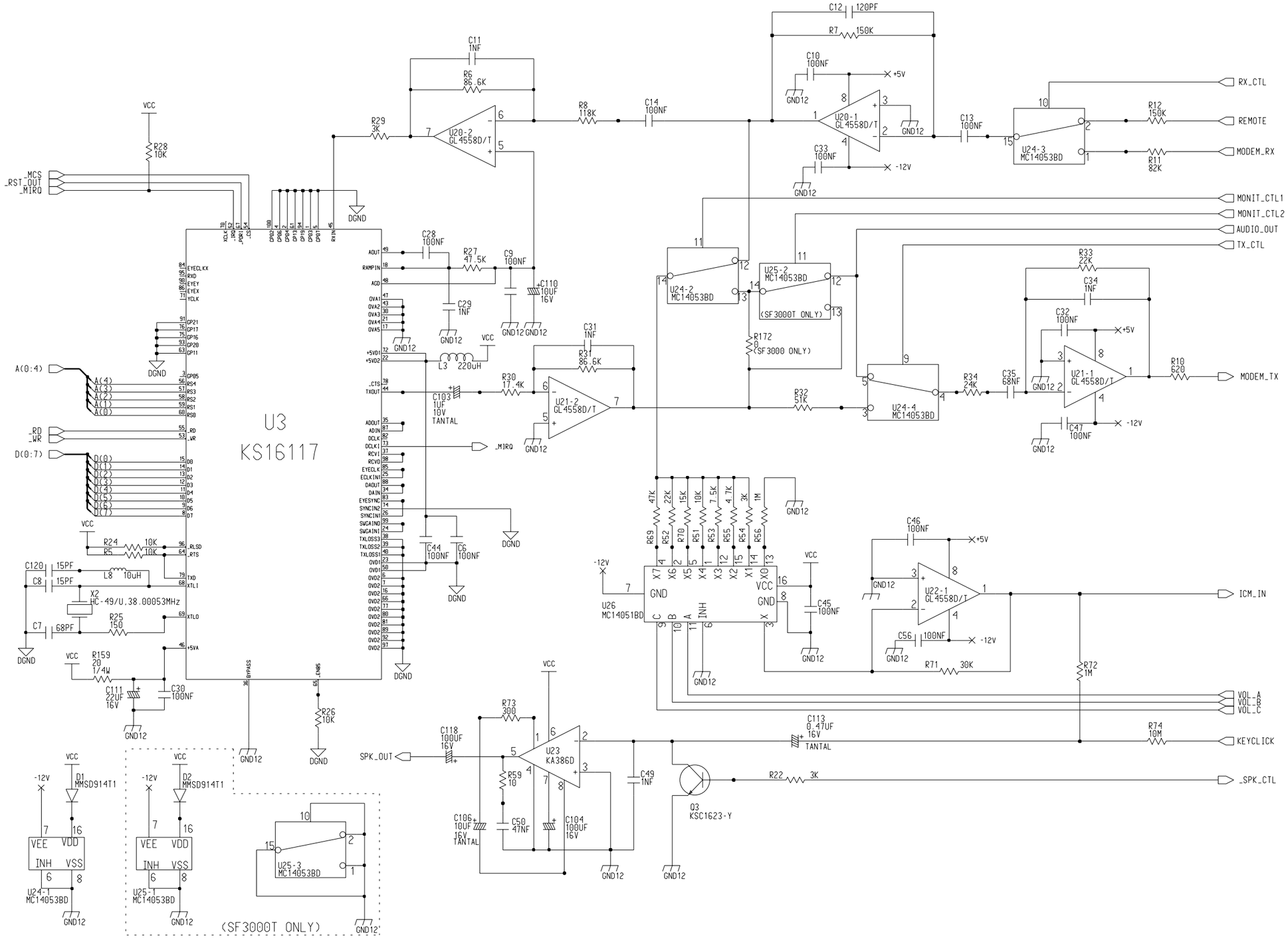




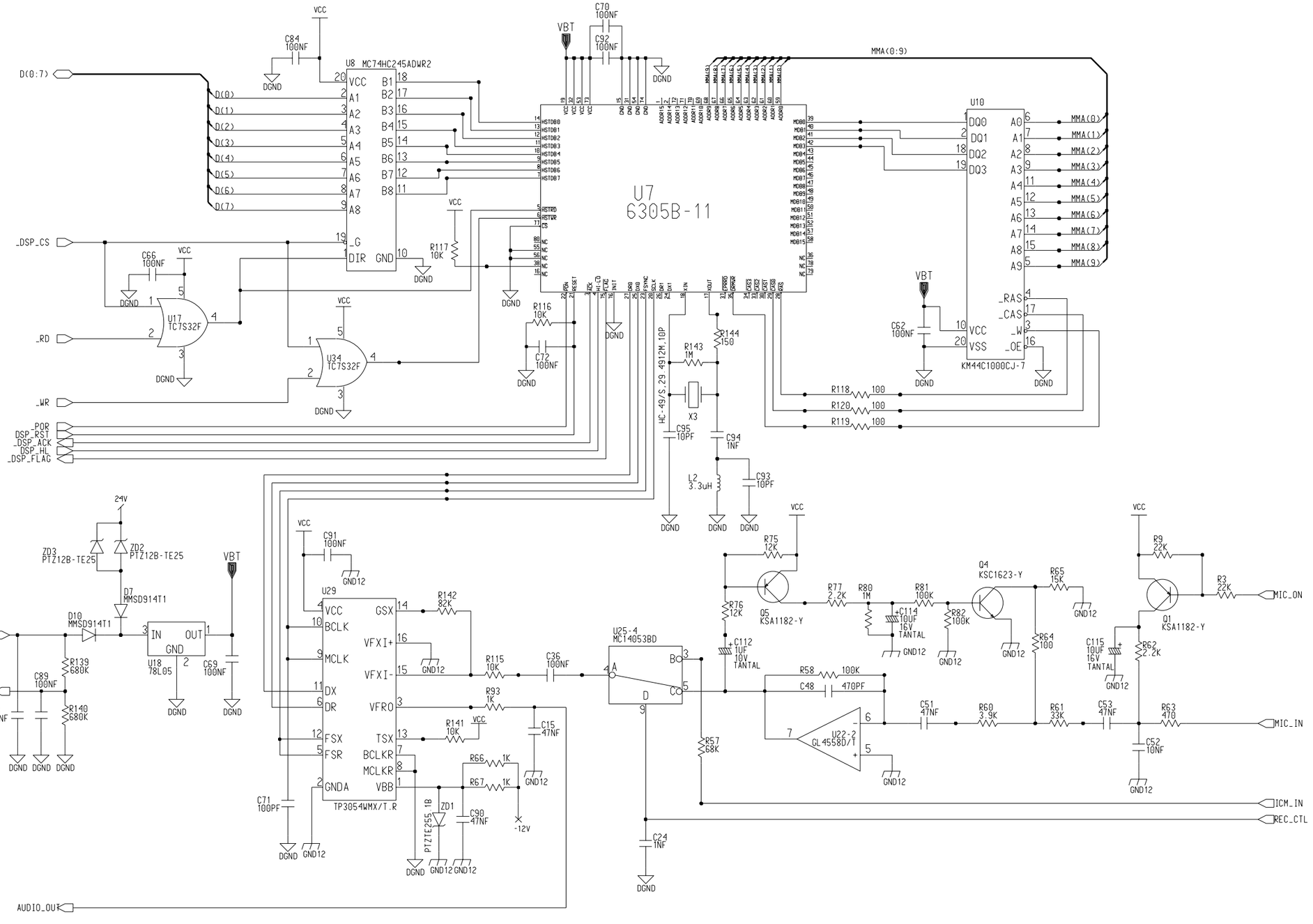




Modem

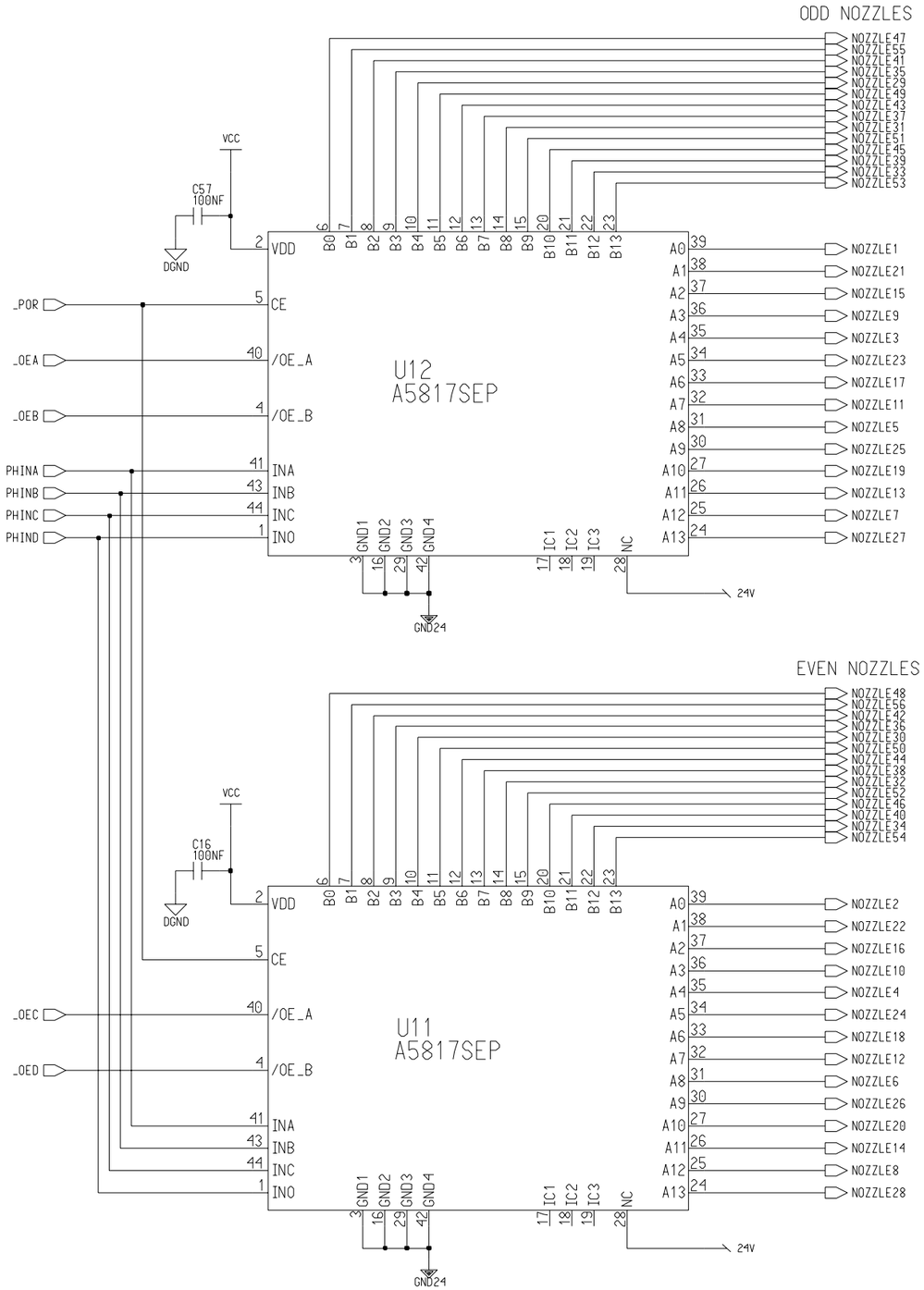

U3
KS16117
VCC
R28 10K
_MCS
_RST_OUT
_MIRQ
DGND
C11 1NF
R6 86.6K
R29 3K
U20-2 GL4558D/T
R8 118K
C14 100NF
C12 120PF
R7 150K
C10 100NF
+5V
GND12
U20-1 GL4558D/T
C13 100NF
C33 100NF
-12V
U24-3 MC14053BD
R12 150K
R11 82K
RX_CTL
REMOTE
MODEM_RX
MONIT_CTL1
MONIT_CTL2
AUDIO_OUT
TX_CTL
C28 100NF
R27 47.5K
C9 100NF
C110 10UF 16V
C29 1NF
L3 220uH
C31 1NF
R31 86.6K
R30 17.4K
C103 1UF 10V TANTAL
U21-2 GL4558D/T
_MIRQ
U24-2 MC14053BD
U25-2 MC14053BD
(SF3000T ONLY)
R172 0 (SF3000 ONLY)
R32 51K
U24-4 MC14053BD
R33 22K
C34 1NF
C32 100NF
U21-1 GL4558D/T
R34 24K
C35 68NF
R10 620
MODEM_TX
C47 100NF
A(0:4)
_RD
_WR
D(0:7)
R24 10K
R25 10K
_RLSD
_RTS
C120 15PF
C8 15PF
L8 10uH
X2 HC-49/U.38.00053MHz
C7 68PF
R25 150
TXD
XTLI
XTLO
+5VA
R159 20 1/4W
C111 22UF 16V
C30 100NF
BYPASS
ENMS
R26 10K
C44 100NF
C6 100NF
R69 47K
R52 22K
R70 15K
R51 10K
R53 7.5K
R55 4.7K
R54 3K
R56 1M
U26 MC14051BD
C45 100NF
C46 100NF
U22-1 GL4558D/T
C56 100NF
R71 30K
R72 1M
ICM_IN
VOL_A
VOL_B
VOL_C
R73 300
C118 100UF 16V
U23 KA386D
R59 10
C50 47NF
C106 10UF 16V TANTAL
C104 100UF 16V
C49 1NF
SPK_OUT
C113 0.47UF 16V TANTAL
R74 10M
KEYCLICK
R22 3K
_SPK_CTL
Q3 KSC1623-Y
D1 MMSD914T1
D2 MMSD914T1
U24-1 MC14053BD
U25-1 MC14053BD
U25-3 MC14053BD
(SF3000T ONLY)

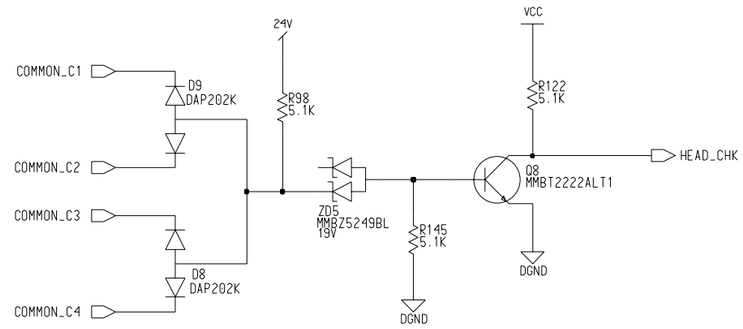
DSPG

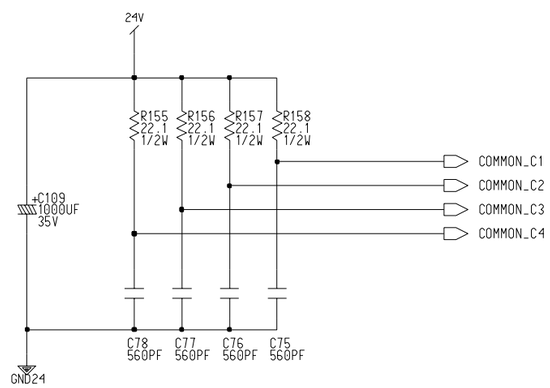


(SF3000T ONLY)

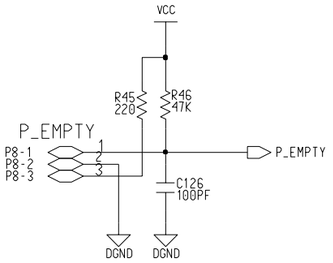
Head Driver

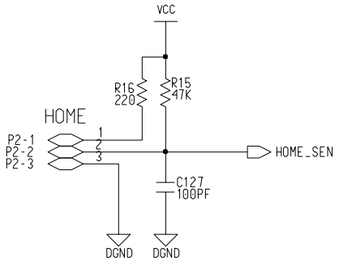

ODD NOZZLES
NOZZLE47
NOZZLE55
NOZZLE41
NOZZLE35
NOZZLE29
NOZZLE49
NOZZLE43
NOZZLE37
NOZZLE31
NOZZLE51
NOZZLE45
NOZZLE39
NOZZLE33
NOZZLE53
VCC
C57
100NF
DGND
U12
A5817SEP
_POR
_OEA
_OEB
PHINA
PHINB
PHINC
PHIND
VDD
CE
/OE_A
/OE_B
INA
INB
INC
INO
B0
B1
B2
B3
B4
B5
B6
B7
B8
B9
B10
B11
B12
B13
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
NOZZLE1
NOZZLE21
NOZZLE15
NOZZLE9
NOZZLE3
NOZZLE23
NOZZLE17
NOZZLE11
NOZZLE5
NOZZLE25
NOZZLE19
NOZZLE13
NOZZLE7
NOZZLE27
GND1
GND2
GND3
GND4
IC1
IC2
IC3
NC
24V
GND24
EVEN NOZZLES
NOZZLE48
NOZZLE56
NOZZLE42
NOZZLE36
NOZZLE30
NOZZLE50
NOZZLE44
NOZZLE38
NOZZLE32
NOZZLE52
NOZZLE46
NOZZLE40
NOZZLE34
NOZZLE54
VCC
C16
100NF
DGND
U11
A5817SEP
_OEC
_OED
VDD
CE
/OE_A
/OE_B
INA
INB
INC
INO
B0
B1
B2
B3
B4
B5
B6
B7
B8
B9
B10
B11
B12
B13
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
NOZZLE2
NOZZLE22
NOZZLE16
NOZZLE10
NOZZLE4
NOZZLE24
NOZZLE18
NOZZLE12
NOZZLE6
NOZZLE26
NOZZLE20
NOZZLE14
NOZZLE8
NOZZLE28
GND1
GND2
GND3
GND4
IC1
IC2
IC3
NC
24V
GND24

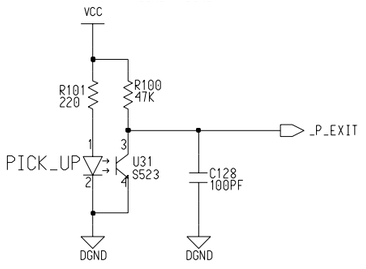

COMMON_C1
COMMON_C2
COMMON_C3
COMMON_C4
D9
DAP202K
D8
DAP202K
24V
R98
5.1K
ZD5
MMBZ5249BL
19V
R145
5.1K
VCC
R122
5.1K
Q8
MMBT2222ALT1
HEAD_CHK
DGND
DGND

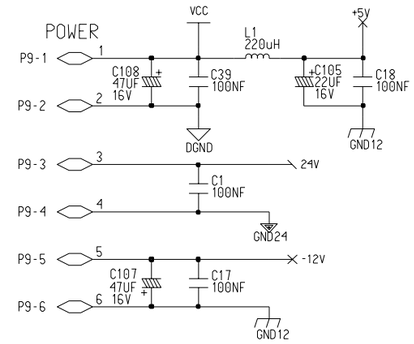

24V
R155
22.1
1/2W
R156
22.1
1/2W
R157
22.1
1/2W
R158
22.1
1/2W
+C109
1000UF
35V
C78
560PF
C77
560PF
C76
560PF
C75
560PF
COMMON_C1
COMMON_C2
COMMON_C3
COMMON_C4
GND24

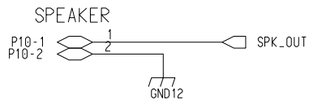
Connector


VCC
R45 220
R46 47K
P_EMPTY
P8-1
P8-2
P8-3
P_EMPTY
C126 100PF
DGND
DGND

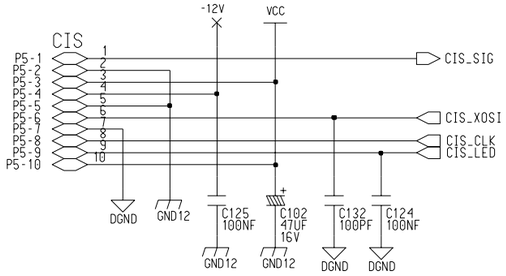

VCC
R16 220
R15 47K
HOME
P2-1
P2-2
P2-3
HOME_SEN
C127 100PF
DGND
DGND


VCC
R101 220
R100 47K
PICK_UP
U31
S523
_P_EXIT
C128 100PF
DGND
DGND

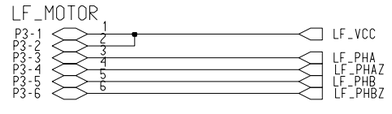

POWER
VCC
+5V
L1 220uH
P9-1
C108 47UF 16V
C39 100NF
+C105 22UF 16V
C18 100NF
P9-2
DGND
GND12
P9-3
24V
C1 100NF
P9-4
GND24
P9-5
-12V
C107 47UF 16V
C17 100NF
P9-6
GND12

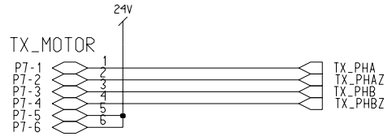

SPEAKER
P10-1
P10-2
SPK_OUT
GND12

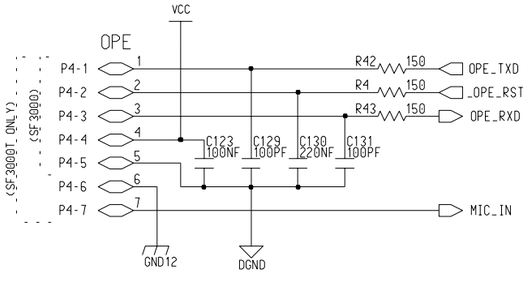
BAT
P13-1
P13-2
BAT_+9V
DGND
(SF3000T ONLY)


CIS
-12V
VCC
P5-1
P5-2
P5-3
P5-4
P5-5
P5-6
P5-7
P5-8
P5-9
P5-10
CIS_SIG
CIS_XOSI
CIS_CLK
CIS_LED
DGND
GND12
C125 100NF
C102 47UF 16V
C132 100PF
C124 100NF
GND12
GND12
DGND
DGND

CR_MOTOR
P12-1
P12-2
P12-3
P12-4
CR_PHA
CR_PHAZ
CR_PHB
CR_PHBZ

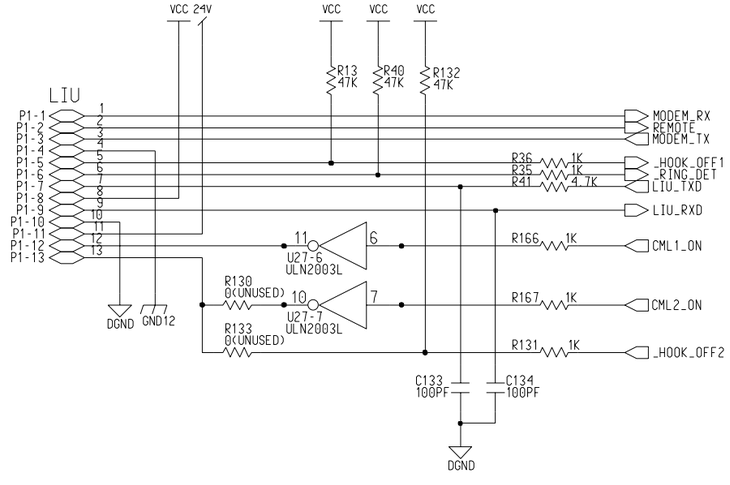

LF_MOTOR
P3-1
P3-2
P3-3
P3-4
P3-5
P3-6
LF_VCC
LF_PHA
LF_PHAZ
LF_PHB
LF_PHBZ


TX_MOTOR
24V
P7-1
P7-2
P7-3
P7-4
P7-5
P7-6
TX_PHA
TX_PHAZ
TX_PHB
TX_PHBZ

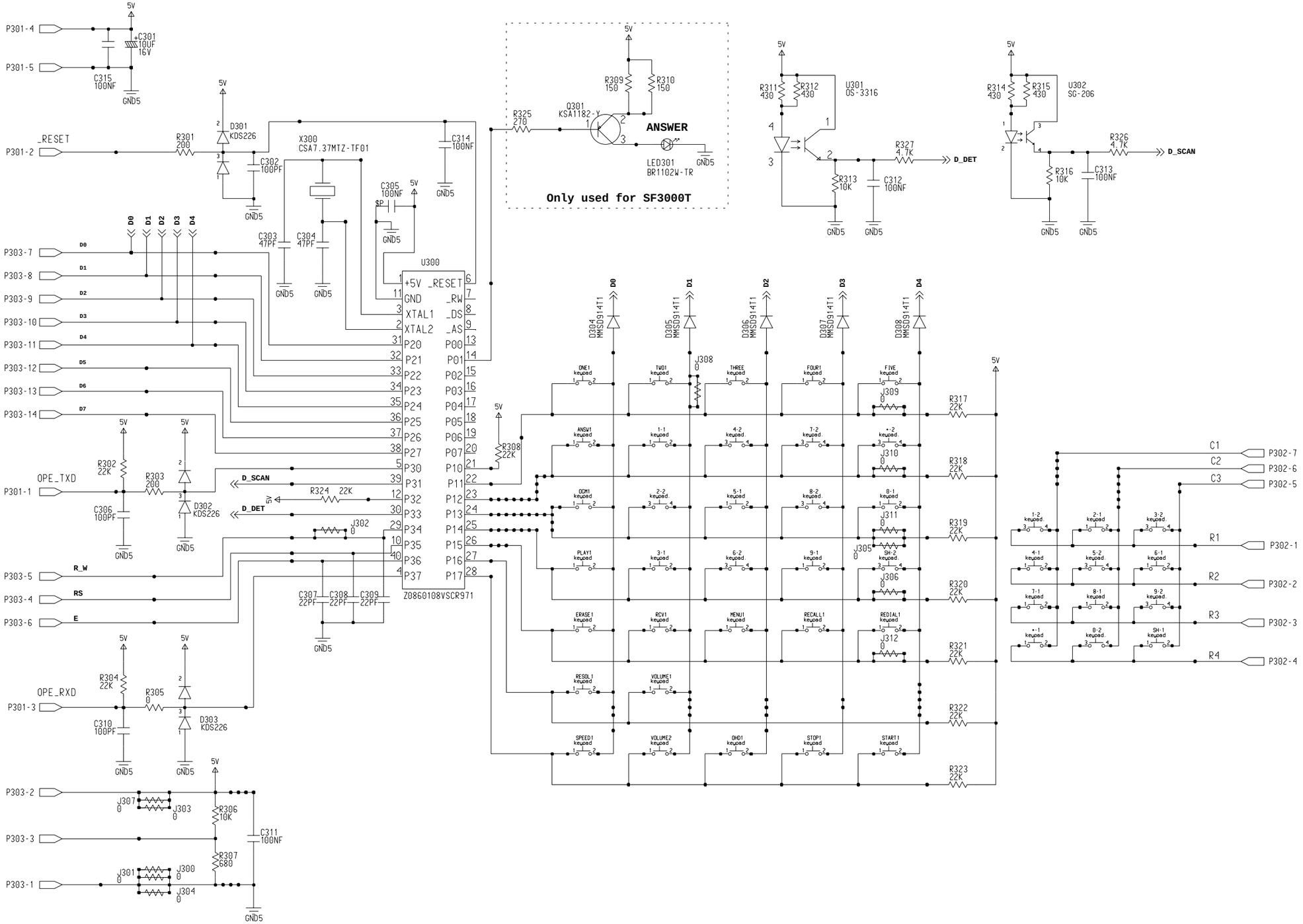

OPE
VCC
(SF3000T ONLY)
(SF3000)
P4-1
P4-2
P4-3
P4-4
P4-5
P4-6
P4-7
R42 150
R4 150
R43 150
OPE_TXD
_OPE_RST
OPE_RXD
C123 100NF
C129 100PF
C130 220NF
C131 100PF
MIC_IN
GND12
DGND

HEAD_1
00-6232-030-807-800
COMMON_C3
NOZZLE55
NOZZLE53
NOZZLE51
NOZZLE33
NOZZLE39
NOZZLE45
NOZZLE49
NOZZLE47
NOZZLE43
NOZZLE41
NOZZLE37
NOZZLE35
NOZZLE31
NOZZLE29
NOZZLE25
NOZZLE23
NOZZLE19
NOZZLE17
NOZZLE13
NOZZLE11
NOZZLE9
NOZZLE7
NOZZLE5
NOZZLE3
NOZZLE1
COMMON_C1
NOZZLE15
NOZZLE21
NOZZLE27
P11-1
P11-2
P11-3
P11-4
P11-5
P11-6
P11-7
P11-8
P11-9
P11-10
P11-11
P11-12
P11-13
P11-14
P11-15
P11-16
P11-17
P11-18
P11-19
P11-20
P11-21
P11-22
P11-23
P11-24
P11-25
P11-26
P11-27
P11-28
P11-29
P11-30

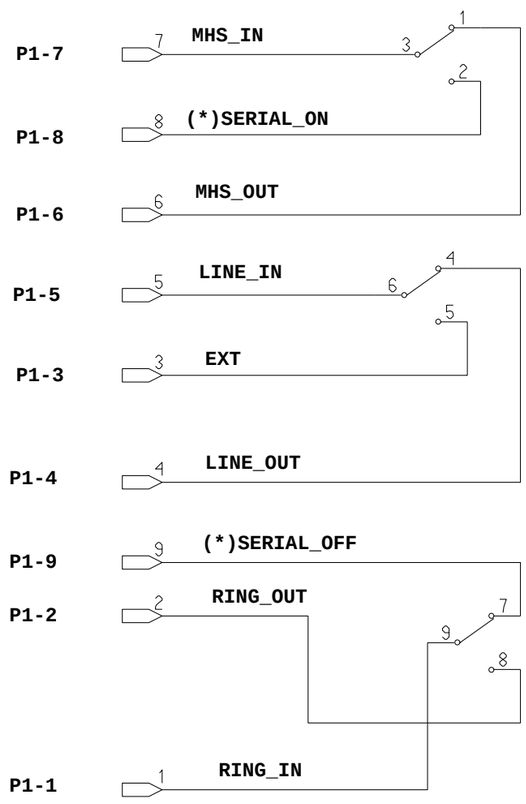
HEAD_2
00-6232-030-807-800
NOZZLE28
NOZZLE22
NOZZLE16
COMMON_C2
NOZZLE2
NOZZLE4
NOZZLE6
NOZZLE8
NOZZLE10
NOZZLE12
NOZZLE14
NOZZLE18
NOZZLE20
NOZZLE24
NOZZLE26
NOZZLE30
NOZZLE32
NOZZLE36
NOZZLE38
NOZZLE42
NOZZLE44
NOZZLE48
NOZZLE50
NOZZLE46
NOZZLE40
NOZZLE34
NOZZLE52
NOZZLE54
NOZZLE56
COMMON_C4
P6-1
P6-2
P6-3
P6-4
P6-5
P6-6
P6-7
P6-8
P6-9
P6-10
P6-11
P6-12
P6-13
P6-14
P6-15
P6-16
P6-17
P6-18
P6-19
P6-20
P6-21
P6-22
P6-23
P6-24
P6-25
P6-26
P6-27
P6-28
P6-29
P6-30


VCC 24V
VCC
VCC
VCC
R13 47K
R40 47K
R132 47K
LIU
P1-1
P1-2
P1-3
P1-4
P1-5
P1-6
P1-7
P1-8
P1-9
P1-10
P1-11
P1-12
P1-13
MODEM_RX
REMOTE
MODEM_TX
R36 1K
R35 1K
R41 4.7K
_HOOK_OFF1
_RING_DET
LIU_TXD
LIU_RXD
U27-6 ULN2003L
R166 1K
CML1_ON
R130 0(UNUSED)
U27-7 ULN2003L
R167 1K
CML2_ON
R133 0(UNUSED)
R131 1K
_HOOK_OFF2
DGND
GND12
C133 100PF
C134 100PF
DGND

12-2. OPE Circuit Diagram

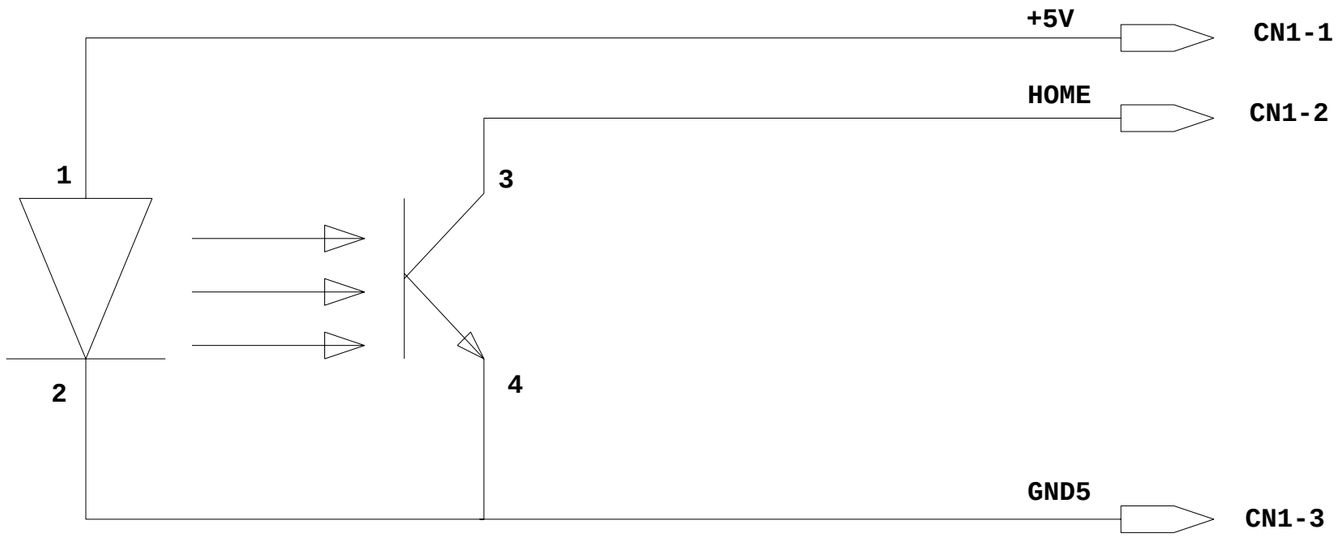


12-3. Hook Circuit Diagram

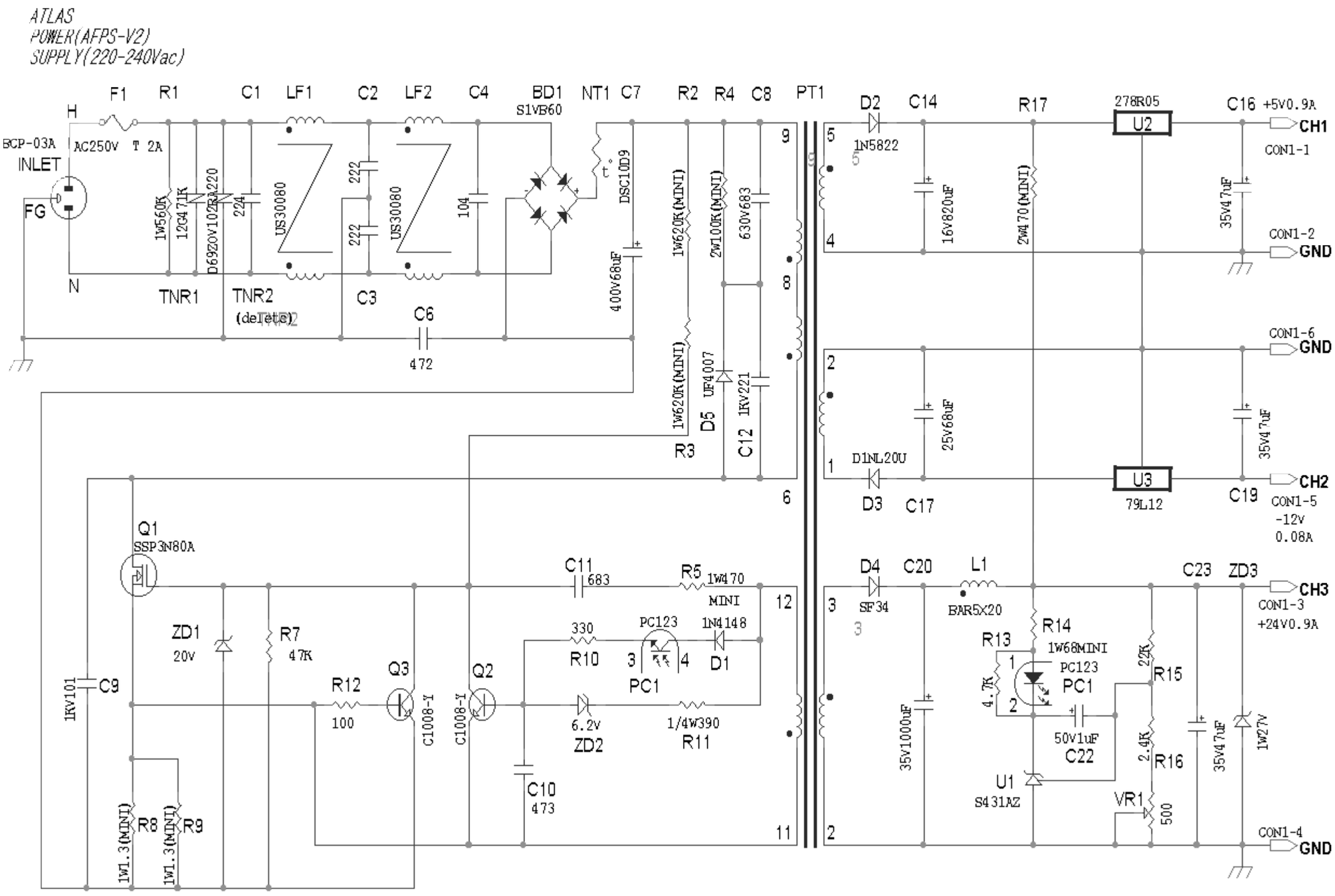


(*) IS FOR ITALY

12-4. Home Circuit Diagram



12-5. AFPS-V2 (1)


ATLAS
POWER(AFPS-V2)
SUPPLY(220-240Vac)
F1
R1
C1
LF1
C2
LF2
C4
BD1
S1VB60
NT1
C7
R2
R4
C8
PT1
D2
C14
R17
278R05
U2
C16
+5V0.9A
CH1
CON1-1
CON1-2
GND
1N5822
16V820uF
2W470(MINI)
35V47uF
BCP-03A
INLET
AC250V T 2A
FG
N
H
1W560K
12G471K
D69Z0V102KA220
224
US30080
222
222
US30080
104
DSC10D9
400V68uF
1W620K(MINI)
2W100K(MINI)
630V683
TNR1
TNR2
(delete)
C3
C6
472
1W620K(MINI)
R3
D5
UF4007
C12
1RV221
CON1-6
GND
D1NL20U
D3
C17
25V68uF
U3
79L12
C19
35V47uF
CH2
CON1-5
-12V
0.08A
Q1
SSP3N80A
C11
683
R5
1W470
MINI
330
R10
PC123
1N4148
D1
PC1
ZD1
20V
R7
47K
R12
100
Q3
Q2
C1008-Y
C1008-Y
6.2V
ZD2
1/4W390
R11
C10
473
1RV101
C9
1W1.3(MINI)
R8
1W1.3(MINI)
R9
D4
C20
L1
SF34
BAR5X20
C23
ZD3
CH3
CON1-3
+24V0.9A
R14
1W68MINI
R13
4.7K
PC123
PC1
22K
R15
2.4K
R16
50V1uF
C22
35V1000uF
U1
S431AZ
VR1
500
35V47uF
1W27V
CON1-4
GND